IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An adaptive filter comprising at least two inputs for receiving at least two signals, and an output for supplying an output signal, characterized in that the adaptive filter further comprises:

means for determining coefficient updates in a transformed domain, said transformed domain being the frequency domain;

an update algorithm with transformed auto- and a cross correlation matrices; and

means for reducing the effect of correlation between the input signals on the coefficient updates, said reducing means multiplying the frequency domain input signals with the inverse of the input channel's power matrix.

2-4. (Cancelled).

5. (Currently Amended) The adaptive filter as claimed in claim 41, characterized in that said adaptive filter comprises a first order recursive network for determining the input channel's power matrix, said first order recursive network receiving the product of the frequency domain input signals and their conjugates as input,

and in that, at each iteration, a certain positive value is added to all elements of the main diagonal.

6. (Currently Amended) The adaptive filter as claimed in claim ~~4~~1, characterized in that the update algorithm comprises solving a linear set of equations with the input channel power matrix as one of the elements of the linear set of equations.

7. (Currently Amended) The adaptive filter as claimed in claim ~~3~~1, characterized in that the adaptive filter comprises means for directly estimating the inverse of the input channel's matrix using a recursive update algorithm, and in that a limit is imposed on the eigenvalues of the matrix.

8. (Previously Presented) A signal processing device comprising an adaptive filter as claimed in claim 1.

9. (Previously Presented) The signal processing device as claimed in claim 8, characterized in that the device further comprises a dynamic echo and noise suppressor as a post-processing device coupled to an output of the adaptive filter.

10. (Previously Presented) The signal processing device as claimed in claim 8, characterized in that the signal-processing device comprises a programmable filter.

11. (Previously Presented) A teleconferencing system comprising at least one signal-processing device as claimed in claim 8.

12. (Previously Presented) A voice-controlled electronic device comprising at least one signal-processing device as claimed in claim 8.

13. (Previously Presented) A noise cancellation system comprising at least one signal-processing device as claimed in claim 8.

14. (Currently Amended) A method for filtering at least two signals and for supplying an output signal, characterized in that the method comprises the steps:

determining coefficient updates in the frequency domain;

using an update algorithm with transformed auto- and a cross correlation matrices; and

reducing the effect of correlation between the input signals on the coefficient updates by multiplying the frequency domain input signals with the inverse of the input channel's power matrix.